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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,136	07/28/2006	Yoshiaki Kumamoto	280999US0PCT	5996
22850 7590 10/16/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER HELLING, KAITLYN ELIZABETH				
ART UNIT		PAPER NUMBER		
3739				
NOTIFICATION DATE		DELIVERY MODE		
10/16/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/556,136

**Applicant(s)**

KUMAMOTO ET AL.

**Examiner**

KAITLYN E. HELLING

**Art Unit**

3739

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-10, 12-16, 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 12-16 and 18-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 06/16/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The Amendment filed on June 16, 2009 has been entered. Claims 1-5, 7-10, 12-16 and 18 remain pending in the application. Claim 19 is newly added.

#### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-5 and 7-10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4-6 and 8 of U.S. Patent No. 7,353,820 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the pending application are simply broader than the patented claims.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claim 12-16 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication No. 01-201253 to Yahara et al. (Yahara) which for the sake of clarity, reference will be made to the English language translation supplied with this Office Action.

Regarding claims 12-14, Yahara teaches a heat generating, shaped article prepared by three-dimensionally shaping a molded sheet, that method comprising an oxidizable metal, a moisture-retaining agent and a fibrous materials (Claims and Industrial Field of Application) with the molded sheet molded by papermaking (Claims and Pg. 4), disposed between an air permeable and an air impermeable sheet (Fig. 1 and Pg. 8) and having a maximum stress of 0.3 to 5 MPa and a breaking elongation of 2.0 to 10% and a maximum stress of 0.5 to 15 MPa and a breaking elongation of 0.8 to 5% in its dried state (The MPa and breaking elongation are measured properties which the Office has no way of measuring. Therefore the burden rests on applicant to provide proof the molded sheet of Yahara does not have these properties and the claimed properties render the claimed invention patentably distinct from that taught by Yahara). In the event that Yahara does not teach such properties, it would have been an obvious matter of design choice among readily available materials to one having ordinary skill in the art at the time of the invention to have used a fibrous material having the claimed

properties because no unique structure is disclosed. Therefore, all claimed materials are considered to have similar properties to similar materials known in the art.

Regarding claims 15 and 16, Yahara teaches the article of claims 12, as well as Yahara teaching the molded sheet containing at least 50% by weight of components other than the fibrous material (Pg. 6), but not the fibrous material having a CSF of 600ml or less (This is a property of pulp drainage and the Office has no way of measuring the CSF of the pulp used in Yahara. The burden rests on applicant to provide proof if the fibrous material disclosed in Yahara does not have this property and the claimed property renders the claimed invention patentably distinct from that taught by Yahara). In the event that the fibrous material taught by Yahara does not have a CSF of 600 ml or less, it would have been obvious to one having ordinary skill in the art at the time of the invention to have used such a fibrous material as a matter of design choice as such properties are easily obtainable in pulp minerals as taught by Yahara.

Regarding claim 18, Yahara teaches the article of claim 12, with Yahara teaching the further limitation of an electrolyte incorporated into the heat generating shaped article (Claims and Industrial Field of Application).

6. Claims 1, 2, 4, 5, 7-10 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application Publication No. 01-201253 to Yahara et al. (Yahara) which for the sake of clarity, reference will be made to the English language translation supplied with this Office Action in view of U.S. 2001/0049546 A1 to Dvoretzky et al. (Dvoretzky).

Regarding claims 1 and 2, Yahara teaches a warming article having a heat generating main body comprising a heat generating element (Fig. 1 and Claims) configured to generate water vapor (inherent in that there is water disposed in the main body and sufficient heating as taught on pg. 10 to cause vaporization) an air permeable holder (2, Fig. 1 and Pg. 8) including an air permeable layer and an air impermeable layer (Pg. 8) which are disposed on opposite sides of the heat generating element (Pg. 8), the heat generating main body expandable by water vapor generated with the heat generation of the heat generating element (Claims and Industrial Field of Application). However, Yahara does not teach a receiving part configured to receive a part of the body which is provided on the air permeable side of the holder. Dvoretzky teaches a multi-purpose drug and heat delivery system (title) including a receiving part (Figs. 1-4 and [0015 and 0041-0044]). The receiving part of Dvoretzky would necessarily be provided on the air permeable side of the heat generating element as it is the air permeable side of the heating element that is going to provide heat treatment to the body part. In Dvoretzky, the body retaining element is in contact with the air impermeable side and the air permeable side (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Yahara to have included the receiving part of Dvoretzky as Dvoretzky teaches that the receiving part securely maintains the heating element in the desired location, assisting in regulating and controlling the heat level and air transmission enabling a controlled heat delivery ([0028]).

Regarding claim 7, Yahara teaches a warming article having a heat generating main body comprising a heat generating element (Fig. 1 and Claims) configured to generate water vapor (inherent in that there is water disposed in the main body and sufficient heating as taught on pg. 10 to cause vaporization) an air permeable holder (2, Fig. 1 and Pg. 8) including an air permeable layer and an air impermeable layer (Pg. 8) which are disposed on opposite sides of the heat generating element (Pg. 8), the heat generating main body expandable by water vapor generated with the heat generation of the heat generating element (Claims and Industrial Field of Application). However, Yahara does not teach a receiving part configured to receive a part of the body which is provided on the air permeable side of the holder. Dvoretzky teaches a multi-purpose drug and heat delivery system (title) including a receiving part (Figs. 1-4 and [0015 and 0041-0044]). The receiving part of Dvoretzky would necessarily be provided on the air permeable side of the heat generating element as it is the air permeable side of the heating element that is going to provide heat treatment to the body part. In Dvoretzky, the body retaining element is in contact with the air impermeable side and the air permeable side (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Yahara to have included the receiving part of Dvoretzky as Dvoretzky teaches that the receiving part securely maintains the heating element in the desired location, assisting in regulating and controlling the heat level and air transmission enabling a controlled heat delivery ([0028]).

However neither Yahara nor Dvoretzky teaches the warming article generating 1.0 to 100 mg/(cm<sup>2</sup>x10 min.) of water vapor. However, the warming article by Yahara is

capable of producing water vapor in this range as the amount of water vapor produced is a function of material choice and the concentration of various components of the pulp mixture disclosed. It would be a matter of routine experimentation and design choice to produce a warming article as taught by Yahara which has a water vapor production within the claimed range. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have made a warming article that is capable of generating the desired water vapor as a matter of course in optimizing the invention (see MPEP 2144).

Regarding claims 4 and 9, Yahara in view of Dvoretzky teaches the article of claims 1 and 7 above, with Yahara teaching the further limitation of the method of producing a warming article comprising a heat generating element prepared by papermaking and containing an oxidizable metal, a moisture-retaining agent, a fibrous material, and water (Claims, Industrial Field of Application and Pgs. 4 and 6).

Regarding claim 8, Yahara in view of Dvoretzky teaches the article of claim 7, with Yahara teaching the further limitation of the holder having an air permeability of 10000 sec/100 ml or less (Pg. 11).

Regarding claims 5 and 10, Yahara in view of Dvoretzky teaches the article of claims 4 and 9, as well as Yahara teaching the molded sheet containing at least 50% by weight of components other than the fibrous material (Pg. 6), but not the fibrous material having a CSF of 600ml or less (This is a property of pulp drainage and the Office has no way of measuring the CSF of the pulp used in Yahara. The burden rests on applicant to provide proof if the fibrous material disclosed in Yahara does not have this property and

the claimed property renders the claimed invention patentably distinct from that taught by Yahara). In the event that the fibrous material taught by Yahara does not have a CSF of 600 ml or less, it would have been obvious to one having ordinary skill in the art at the time of the invention to have used such a fibrous material as a matter of design choice as such properties are easily obtainable in pulp minerals as taught by Yahara.

Regarding claim 19, see the rejection of claim 7 with respect to the placement of the receiving part in conjunction with the layers.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yahara et al. and Dvoretzky as applied to claim 1 above, and further in view of Japanese Patent Application Publication No. 2002-078728 to Toru et al. (Toru).

Yahara in view of Dvoretzky teaches the article of claim 1, but not the moisture or water permeability within the range of 1.5 to 10 kg/(m<sup>2</sup>x24 hr). Toru teaches a warming article with air permeability that has a moisture permeability within the range of 1.5 to 10 kg/(m<sup>2</sup>x24 hr). It would have been obvious to one having ordinary skill in the art at the time of the invention to have further modified Yahara and Usui with the moisture/water vapor permeability of Toru as Toru teaches that steam generation in a warming article to be applied to the skin is advantageous (Claims).

### ***Response to Arguments***

8. Applicant's arguments, see pages 6-8, filed June 16, 2009, with respect to the rejection(s) in view of the Usui reference have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of Yahara in view of Dvoretzky.

9. Applicant's arguments filed June 16, 2009 with respect to the rejection of claim 12 have been fully considered but they are not persuasive.

a. With respect to applicant's argument that applicant does not have the burden to provide proof if the molded sheet of Yahara does not have the properties of claim 12 with respect to maximum stress and breaking elongation, the examiner maintains the rejection. As Yahara teaches a heat generating, shaped article prepared by three-dimensionally shaping a molded sheet, that method comprising an oxidizable metal, a moisture-retaining agent and a fibrous materials (Claims and Industrial Field of Application) with the molded sheet molded by papermaking (Claims and Pg. 4), applicant must distinguish the molded sheet of Yahara from the molded sheet as claimed. However, in the event that the molded sheet of Yahara is not the same as the claimed molded sheet it would have been an obvious matter of design choice among readily available materials to one having ordinary skill in the art at the time of the invention to have used a fibrous material having the claimed properties because no unique structure is disclosed. Therefore, all claimed materials are considered to have similar properties to similar materials known in the art.

b. Regarding applicant's argument on page 9 of the remarks/arguments, the examiner maintains the rejection. The examiner is not stating that the maximum stress and breaking elongation parameters are optimum values that resulted

from routine experimentation by one of ordinary skill in the art. The examiner is taking the position that the maximum stress and breaking elongation parameters would result from an obvious design choice among readily available materials to one having ordinary skill in the art as no unique structure is disclosed.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAITLYN E. HELLING whose telephone number is (571)270-5845. The examiner can normally be reached on Monday - Friday 9:00 a.m. to 5:30 p.m. EDT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571)272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/KAITLYN E. HELLING/  
Examiner, Art Unit 3739

/Linda C Dvorak/  
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